Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

Completed by: Vahid Bakhtiar

GENERAL INFORMATION:

Name:	Audubon Metals, LLC
Address:	Same as above
Date application received:	12/15/2006
SIC Code/SIC description:	3341, Secondary Smelting and Refining of Nonferrous Metals (aluminum)
Source ID:	21-101-00118
Source A.I. #:	1790
Activity ID:	APE20060002
Permit:	F-07-019, Renewal

APPLICATION TYPE/PERMIT ACTIVITY:

[ ] Initial issuance	[ ] General permit
[ ] Permit modification	[X] Conditional major
__Administrative	[ ] Title V
__Minor	[X] Synthetic minor
__Significant	[X] Operating
[X] Permit renewal	[ ] Construction/operating

COMPLIANCE SUMMARY:

[ ] Source is out of compliance [ ] Compliance schedule included

[X] Compliance certification signed

APPLICABLE REQUIREMENTS LIST:

[ ] NSR	[ ] NSPS	[X] SIP
[ ] PSD	[X] NESHAPS	[ ] Other
[ ] Netted out of PSD/NSR	[ ] Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

[ ] Acid rain source
[ ] Source subject to 112(r)
[X] Source applied for federally enforceable emissions cap
[ ] Source provided terms for alternative operating scenarios
[X] Source subject to a MACT standard
[ ] Source requested case-by-case 112(g) or (j) determination
[ ] Application proposes new control technology
[X] Certified by responsible official
[X] Diagrams or drawings included
[ ] Confidential business information (CBI) submitted in application
[ ] Pollution Prevention Measures
[ ] Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Potential to Emit (TPY)	Allowable (TPY)
PM	83.43	90.0
PM10	74.29	90.0
CO	40.25	40.25
NO_X	47.92	47.92
SO_2	0.29	0.29
VOC	3.29	3.29
Cl_2	0.0	1.0
HCl	3.74	3.74
D/F (TEQ)	1.1E-06	See Secondary Aluminum MACT
HF	7.52	7.52

SOURCE PROCESS DESCRIPTION:

Audubon Metals, LLC (hereby referred to as Audubon) receives non-ferrous metals from automobile shredding plant and produces high quality aluminum ingots for use in the automotive die-casting industry. The metal is a mixture of aluminum, zinc, copper, magnesium, and stainless steel. The material passes through five separation stations and is separated into steel, aluminum/magnesium mix, heavies, and high-quality aluminum categories. The high quality aluminum is then melted down in a smelter/converter furnace and cast into aluminum ingots. The source has requested an additional smelter/converter furnace as a standby in the event that either furnace #1 or #2 was down.

In March 2006, Audubon submitted an application for a significant revision on its permit. This application proposed the construction of a new rotary thermal dryer with hourly throughput rate of 16.45 tph of scrap aluminum to replace the existing one rated at 9.74 tph. This application also proposed that the previous combined control systems be separated. The new control devices will capture and vent the exhaust of the smelter/converter furnaces #1 through #3 (EP 3) through the new 200,000 acfm dry scrubber/baghouse system. The old control devices will be used for the rotary thermal dryer (EP 6) with a total exhaust volume of 110,000 acfm through the current single stack. No changes were proposed in the scrap handling and other affected facilities.

EMISSION AND OPERATING CAPS DESCRIPTION:

Emission caps are as follow:

Emission Point	Pollutant	Allowable	Applicable Regulation
Group 1: • 003 Smelter/Converter Furnace #1 • 004 Smelter/Converter Furnace #2 • 005 Smelter/Converter Furnace #3 • 006(-) Rotary Thermal Dryer	• Particulate / Opacity • HF • D/F (TEQ)	Particulate/Opacity: • Source-wide particulate emissions shall not exceed 98.6 tons/12-month rolling average. Self-imposed to preclude 401 KAR 52:020 – Title V permits. • For each furnace, particulate emission allowable is 10.33 pounds/hour. For three furnaces as a group, particulate emission allowable is 45 tons/12-month rolling average. For the dryer, particulate emission allowable is 20.38 pounds/hour, 25 tons/12-month rolling average (Synthetic Minor Limit). • For each emission point, the opacity shall not equal or exceed 20%. HF: • Source-wide HF emissions shall not exceed 7.52 tons/12-month rolling average. D/F: • D/F emissions shall not exceed the limits specified in the applicable regulations for the thermal chip dryer.	Particulate/Opacity: • 401 KAR 52:030 - Self-imposed to preclude 401 KAR 52:020. • 401 KAR 59:010 HF: 401 KAR 53:010 D/F: 40 CFR 63 Subpart RRR §63.1505 (c)(2)
Group 2: • 001(E0) Raw material handling – non-ferrous metal scrap • 002(E1) Ring crusher and air classifier • 007(-) Vehicular Traffic Fugitive	Particulate / Opacity	• Particulate emission allowable is 1.14 pounds/hour, 5 tons/12-month rolling average for 001(E0), 0.34 pounds/hour, 1.5 tons/12-month rolling average for 002(E1), and 3.65 pounds/hour, 16 tons/12-month rolling average for 007(-). • For 007(-), the opacity shall not equal or exceed 20%.	• 401 KAR 52:030 - Self-imposed to preclude 401 KAR 52:020. • 401 KAR 59:010

Operating caps are as follow:

Emission Point	Pollutant	Operating requirement	Applicable Regulation
Group 1: • 003 Smelter/Converter Furnace #1 • 004 Smelter/Converter Furnace #2 • 005 Smelter/Converter Furnace #3 • 006(-) Rotary Dryer Group 2: • 001(E0) Raw material handling – non-ferrous metal scrap • 002(E1) Ring crusher and air classifier 007(-) Vehicular Traffic Fugitive	• Particulate • HAPs • D/F (TEQ)	<u>Particulate</u>: • The permittee shall only use clean charge for three smelter/converter furnaces. • For each furnace, the permittee shall not process more than 5.5 ton/hour of scrap aluminum and base metal, 10,000 pounds/day of flux. For each furnace, the permittee shall not process more than 120 pounds of demag chlorine gas per hour over a three hour average period. For the dryer, the permittee shall not process more than 16.45 tons/hour of scrap aluminum. The permittee shall not process at rates that will cause source-wide particulate emissions to exceed 98.6 tons/12-month rolling average. Self-imposed to preclude 401 KAR 52:020 – Title V permits. • The permittee shall comply with applicable operating standards in 401 KAR 63:010 Section 3. <u>D/F</u>: • The permittee shall comply with applicable operating requirements specified in the applicable regulation for the thermal chip dryer.	<u>Particulate</u>: • 401 KAR 52:030 - Self-imposed to preclude 401 KAR 52:020. • 401 KAR 63:010 <u>D/F</u>: • 40 CFR 63 Subpart RRR §63.1506

OPERATIONAL FLEXIBILITY:

In order to maintain the smelter/converter furnaces as clean charge only furnaces, the facility is allowed to operate the rotary thermal dryer as a "scrap dryer/delacquering kiln/decoating kiln" on an as needed basis. Under this alternative scenario, this emission point is defined as a new scrap dryer/delacquering kiln/decoating kiln pursuant to 40 CFR 63 Subpart RRR §63.1503 . Per the 40 CFR 63 Subpart RRR §63.1500 Applicability, this unit is only subject to the Subpart RRR requirements for D/F because the facility is an area source of hazardous air pollutants. The detailed requirements are in Section B: **ALTERNATE OPERATING SCENARIOS** in the revised permit.